

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference  PCT 84272	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No.  PCT/IT2004/000713	International filing date (day/month/year)  21/12/2004	(Earliest) Priority Date (day/month/year)  22/12/2003	
Applicant  UNIVERSITA DEGLI STUDI DI SIENA			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**
  - a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.
  - b.  **Certain claims were found unsearchable** (See Box II).
  - c.  **Unity of invention is lacking** (see Box III).
4. With regard to the **title**,
 

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:
5. With regard to the **abstract**,
 

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. With regard to the **drawings**,
  - a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_
 

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.
  - b.  none of the figures is to be published with the abstract.

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IT2004/000713

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61K33/42 A61P19/02 A61P19/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, SCISEARCH, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X D1	CINI R ET AL: "Dissolution of calcium pyrophosphate crystals by polyphosphates: An in vitro and ex vivo study" ANNALS OF THE RHEUMATIC DISEASES, vol. 60, no. 10, October 2001 (2001-10), pages 962-967, XP002328845 ISSN: 0003-4967 the whole document -----	1-10
X D2	US 3 541 208 A (CLAY J. DANN SR) 17 November 1970 (1970-11-17) the whole document -----	1-3, 10
Y	----- -----	4-8

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

20 May 2005

Date of mailing of the international search report

09/06/2005

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IT2004/000713

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X D3	GB 1 132 233 A (HARVEY ASHMEAD; FLOYD R MENCIMER) 30 October 1968 (1968-10-30) page 1, left-hand column, line 11 - line 22 right-hand column, line 70 - line 75 page 2, right-hand column, line 107 - line 119 page 19	1-3, 10
Y		4-8
X D4	US 2002/022052 A1 (DRANSFIELD CHARLES WILLIAM) 21 February 2002 (2002-02-21) paragraph '0126! - paragraph '0140!	1-10
X D5	FR 1 077 682 A (MONSANTO CHEMICAL COMPANY) 10 November 1954 (1954-11-10) page 2, left-hand column, paragraphs 2,4 right-hand column, paragraph 1 table	1-10
X D6	GB 817 181 A (BRISTOL LABORATORIES INC) 29 July 1959 (1959-07-29) page 2, left-hand column, paragraphs 1,2 right-hand column, paragraphs 1,2 example X	1-10
X D7	RYAN L M ET AL: "Stimulation of cartilage inorganic pyrophosphate elaboration by ascorbate" MATRIX 1991 GERMANY, vol. 11, no. 4, 1991, pages 276-281, XP009047873 ISSN: 0934-8832 the whole document	9
Y D8	WO 00/66599 A (OBERTHUE, WALTER; KESEL, ANDREAS, JOHANNES) 9 November 2000 (2000-11-09) page 22, line 23 - line 29	4-10
Y D9	US 6 399 093 B1 (PETRUS EDWARD J) 4 June 2002 (2002-06-04) examples 3,4	4-10

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IT2004/000713

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 3541208	A	17-11-1970	NONE		
GB 1132233	A	30-10-1968	NONE		
US 2002022052	A1	21-02-2002	NONE		
FR 1077682	A	10-11-1954	NONE		
GB 817181	A	29-07-1959	MY	7561 A	31-12-1961
WO 0066599	A	09-11-2000	AU AU BR CA CA WO EP EP HU JP JP PL US	3826099 A 4559000 A 9910207 A 2330811 A1 2371653 A1 0066599 A1 1173451 A1 1075481 A1 0101890 A2 2002513795 T 2002543209 T 343863 A1 6369042 B1	23-11-1999 17-11-2000 09-01-2001 11-11-1999 09-11-2000 09-11-2000 23-01-2002 14-02-2001 28-10-2001 14-05-2002 17-12-2002 10-09-2001 09-04-2002
US 6399093	B1	04-06-2002	NONE		